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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
BOWMAN, AMY HUDSON	
ART UNIT	**PAPER NUMBER**
1635	

DATE MAILED: 07/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/776,934	HANSEN ET AL.	
	Examiner	Art Unit	
	Amy H. Bowman	1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2004*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-152* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-152* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-87 and 120-124, drawn to a compound comprising a subsequence being located within a specific sequence, linkage groups and nucleotide analogs, and to a pharmaceutical composition comprising the compound and a chemotherapeutic agent, classified in class 435, subclass 6. **Election of this group requires further election of a single sequence as explained below.**

II. Claims 88 and 119, drawn to a compound consisting of SEQ ID NO: 147, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

III. Claims 89 and 119, drawn to a compound consisting of SEQ ID NO: 151, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

IV. Claims 90 and 119, drawn to a compound consisting of SEQ ID NO: 155, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

V. Claims 91 and 119, drawn to a compound consisting of SEQ ID NO: 159, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

VI. Claims 92 and 119, drawn to a compound consisting of SEQ ID NO: 163, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

VII. Claims 93 and 119, drawn to a compound consisting of SEQ ID NO: 167, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

VIII. Claims 94 and 119, drawn to a compound consisting of SEQ ID NO: 171, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

IX. Claims 95 and 119, drawn to a compound consisting of SEQ ID NO: 175, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

X. Claims 96 and 119, drawn to a compound consisting of SEQ ID NO: 179, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XI. Claims 97 and 119, drawn to a compound consisting of SEQ ID NO: 183, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XII. Claims 98 and 119, drawn to a compound consisting of SEQ ID NO: 187, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XIII. Claims 99 and 119, drawn to a compound consisting of SEQ ID NO: 191, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XIV. Claims 100 and 119, drawn to a compound consisting of SEQ ID NO: 195, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XV. Claims 101 and 119, drawn to a compound consisting of SEQ ID NO: 199, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XVI. Claims 102 and 119, drawn to a compound consisting of SEQ ID NO: 608, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XVII. Claims 103 and 119, drawn to a compound consisting of SEQ ID NO: 612, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XVIII. Claims 104 and 119, drawn to a compound consisting of SEQ ID NO: 616, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XIX. Claims 105 and 119, drawn to a compound consisting of SEQ ID NO: 620, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XX. Claims 106 and 119, drawn to a compound consisting of SEQ ID NO: 624, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXI. Claims 107 and 119, drawn to a compound consisting of SEQ ID NO: 628, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXII. Claims 108 and 119, drawn to a compound consisting of SEQ ID NO: 632, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXIII. Claims 109 and 119, drawn to a compound consisting of SEQ ID NO: 636, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXIV. Claims 110 and 119, drawn to a compound consisting of SEQ ID NO: 640, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXV. Claims 111 and 119, drawn to a compound consisting of SEQ ID NO: 644, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXVI. Claims 112 and 119, drawn to a compound consisting of SEQ ID NO: 648, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXVII. Claims 113 and 119, drawn to a compound consisting of SEQ ID NO: 652, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXVIII. Claims 114 and 119, drawn to a compound consisting of SEQ ID NO: 656, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXIX. Claims 115 and 119, drawn to a compound consisting of SEQ ID NO: 660, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXX. Claims 116 and 119, drawn to a compound consisting of SEQ ID NO: 664, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXXI. Claims 117 and 119, drawn to a compound consisting of SEQ ID NO: 668, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXXII. Claims 118 and 119, drawn to a compound consisting of SEQ ID NO: 672, wherein the 3' end LNA is replaced by the corresponding nucleotide, classified in class 435, subclass 6.

XXXIII. Claims 125-130, drawn to use of the compound of claim 1 for the manufacture of a medicament for treatment of cancer, wherein the cancer is in the form of a solid tumor, wherein the cancer is a carcinoma, classified in class 514, subclass 44.

XXXIV. Claims 125, 126, 131 and 132, drawn to use of the compound of claim 1 for the manufacture of a medicament for treatment of cancer, wherein the cancer is in the form of a solid tumor, wherein the cancer is a sarcoma, classified in class 514, subclass 44.

XXXV. Claims 125, 126, and 133, drawn to use of the compound of claim 1 for the manufacture of a medicament for treatment of cancer, wherein the cancer is in the form of a solid tumor, wherein the cancer is a glioma, classified in class 514, subclass 44.

XXXVI. Claims 134-139, drawn to a method for treating cancer, said method comprising administering the compound of claim 1 to a patient in need thereof, wherein the cancer is in the form of a solid tumor, wherein the cancer is a carcinoma, classified in class 514, subclass 44.

XXXVII. Claims 134, 140 and 141, drawn to a method for treating cancer, said method comprising administering the compound of claim 1 to a patient in need thereof, wherein the cancer is a sarcoma, classified in class 514, subclass 44.

XXXVIII. Claims 134, 135 and 142, drawn to a method for treating cancer, said method comprising administering the compound of claim 1 to a patient in need thereof, wherein the cancer is in the form of a solid tumor, wherein the cancer is a glioma, classified in class 514, subclass 44.

XXXIX. Claim 143, drawn to the use of the compound of claim 1 for preparation of a medicament for treatment of artherosclerosis, psoriasis, diabetic

retinopathy, rheumatoid arthritis, asthma, warts and allergic dermatitis, classified in class 514, subclass 44.

XL. Claims 144-147, drawn to use of the compound of claim 1 for the manufacture of a medicament for the treatment of cancer, wherein the medicament further comprises a chemotherapeutic agent, classified in class 514, subclass 44.

XLI. Claims 148 and 149, drawn to a method for treating cancer comprising administering the compound of claim 1 and a chemotherapeutic agent to a patient in need thereof, classified in class 514, subclass 44.

XLII. Claim 150, drawn to a method of treating a mammal suffering from or susceptible from a disease caused by abnormal angiogenesis comprising administering an oligonucleotide targeted to survivin that comprises one or more LNA units, classified in class 514, subclass 44.

XLIII. Claims 151 and 152, drawn to a method of preventing or limiting apoptosis claims, and to a method of preventing cellular proliferation, comprising administration of a compound of claim 1, classified in class 514, subclass 44.

The inventions are distinct, each from the other because of the following reasons:

The inventions of groups I-XXXII are each unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have

different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups I-XXXII have not been disclosed as capable of use together and have different effects. Each of the inventions are drawn to a different and distinct structure, each requiring a separate search. Each of the claimed structures do not contain a common core. Each of the groups is drawn to a separate and distinct sequence, each comprising a separate sequence of nucleotides, resulting in molecules that result in different effects. To search for one of the structures would not necessarily return art for another of the structures. Therefore, to search more than one of the instantly claimed structures presents a search burden.

The invention of group I is related to the inventions of groups XXXIII-XXXV as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product compound of group I can be used to treat cancer which does not involve the manufacture of a medicament as present in groups XXXIII-XXXV. The search for each of these inventions is not coextensive due to the divergent subject matter. To search both inventions in the same application presents a search burden.

The inventions of groups II-XXXII are each unrelated to the inventions of groups XXXIII-XXXV. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions

of groups II-XXXII have not been disclosed as capable of use together and have different effects as the inventions of groups XXXIII-XXXV. A search for any one of the sequences of groups II-XXXII would not include a search for the methods of using the specific sequences of group I. The methods of groups XXXIII-XXXV do not involve any of the sequences of groups II-XXXII. To search for one of the inventions of groups II-XXXIII would not necessarily return art against the unrelated methods of groups XXXIII-XXXV. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The invention of group I is related to the inventions of groups XXXVI-XXXVIII as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product compound of group I can be used to prepare a medicament which does not involve treating cancer. The search for each of these inventions is not coextensive due to the divergent subject matter. To search both inventions in the same application presents a search burden.

The inventions of groups II-XXXII are each unrelated to the inventions of groups XXXVI-XXXVIII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups II-XXXII have not been disclosed as capable of use together and

have different effects as the inventions of groups XXXVI-XXXVIII. A search for any one of the sequences of groups II-XXXII would not include a search for the methods of treatment of groups XXXVI-XXXVIII. The methods of groups XXXVI-XXXVIII do not involve any of the sequences of groups II-XXXII. To search for one of the inventions of groups II-XXXIII would not necessarily return art against the unrelated methods of groups XXXVI-XXXVIII. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The invention of group I is related to the invention of group XXXIX as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product compound of group I can be used to treat cancer which does not involve preparation of a medicament. The search for each of these inventions is not coextensive due to the divergent subject matter. To search both inventions in the same application presents a search burden.

The inventions of groups II-XXXII are each unrelated to the invention of group XXXIX. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups II-XXXII have not been disclosed as capable of use together and have different effects as the invention of group XXXIX. A search for any one of the

sequences of groups II-XXXII would not include a search for the method of preparing a medicament to treat the various disorders of group XXXIX. The method of group XXXIX does not involve any of the sequences of groups II-XXXII. To search for one of the inventions of groups II-XXXIII would not necessarily return art against the unrelated method of group XXXIX. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The invention of group I is related to the invention of group XL as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product compound of group I can be used to treat cancer which does not involve preparation of a medicament. The search for each of these inventions is not coextensive due to the divergent subject matter. To search both inventions in the same application presents a search burden.

The inventions of groups II-XXXII are each unrelated to the invention of group XL. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups II-XXXII have not been disclosed as capable of use together and have different effects as the invention of group XL. A search for any one of the sequences of groups II-XXXII would not include a search for the method of preparing a medicament to treat cancer of

group XL. The method of group XL does not involve any of the sequences of groups II-XXXII. To search for one of the inventions of groups II-XXXIII would not necessarily return art against the unrelated method of group XL. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The invention of group I is related to the invention of group XLI as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product compound of group I can be used to prepare a medicament which does not involve the treatment of cancer. The search for each of these inventions is not coextensive due to the divergent subject matter. To search both inventions in the same application presents a search burden.

The inventions of groups II-XXXII are each unrelated to the invention of group XLI. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups II-XXXII have not been disclosed as capable of use together and have different effects as the invention of group XLI. A search for any one of the sequences of groups II-XXXII would not include a search for the method of treating cancer of group XLI. The method of group XLI does not involve any of the sequences of groups II-XXXII. To search for one of the inventions of groups II-XXXIII would not necessarily return art

against the unrelated method of group XLI. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups I-XXXII are each unrelated to the invention of group XLII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups I-XXXII have not been disclosed as capable of use together and have different effects as the invention of group XLII. A search for any one of the compounds of groups I-XXXII would not include a search for the method of administering an oligonucleotide targeted to survivin to treat a mammal, as present in group XLII. The compounds of claims I-XXXII have not been disclosed as capable of use with the method of group XLII. To search for one of the inventions of groups I-XXXIII would not necessarily return art against the unrelated method of group XLII. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The invention of group I is related to the invention of group XLIII as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product compound of group I can be used to prepare a medicament which does not involve the prevention methods of group XLIII. The search for each of

these inventions is not coextensive due to the divergent subject matter. To search both inventions in the same application presents a search burden.

The inventions of groups II-XXXII are each unrelated to the invention of group XLIII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups II-XXXII have not been disclosed as capable of use together and have different effects as the invention of group XLIII. A search for any one of the sequences of groups II-XXXII would not include a search for the prevention methods of group XLIII. The method of group XLIII does not involve any of the sequences of groups II-XXXII. To search for one of the inventions of groups II-XXXIII would not necessarily return art against the unrelated method of group XLIII. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXIII-XXXV are each unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXIII-XXXV have not been disclosed as capable of use together and have different effects. Manufacturing a medicament to treat a carcinoma, a sarcoma, or a glioma which each involve a separate and distinct search. Manufacturing a medicament for one of the types of cancers has not been disclosed as capable of use with the manufacture of a medicament to the other types of cancers. The manufacture of each of these separate

medicaments has different effects. To search for one of the inventions of groups XXXIII-XXXV would not necessarily return art against one of the other inventions. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXIII-XXXV are each unrelated to the inventions of groups XXXVI-XXXVIII or XLI. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXIII-XXXV have not been disclosed as capable of use together and have different effects than the inventions of groups XXXVI-XXXVIII or XLI. The inventions of groups XXXIII-XXXV are drawn to separate and distinct methods than the inventions of groups XXXVI-XXXVIII or XLI. The inventions of groups XXXIII-XXXV have the effect of manufacturing a medicament, whereas the inventions of groups XXXVI-XXXVIII or XLI have the effect of treating cancer, each of which would have separate and distinct method steps to reach the outcome. To search for one of the inventions of groups XXXIII-XXXV would not necessarily return art against any of the inventions of groups XXXVI-XXXVIII or XLI. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXIII-XXXV are each unrelated to the invention of group XXXIX. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions

of groups XXXIII-XXXV have not been disclosed as capable of use together and have different effects than the invention of group XXXIX. The inventions of groups XXXIII-XXXV are drawn to separate and distinct methods than the invention of group XXXIX. The inventions of groups XXXIII-XXXV have the effect of manufacturing a medicament for the treatment of cancer, whereas the invention of group XXXIX has the effect of preparation of a medicament for the treatment of artherosclerosis, psoriasis, diabetic retinopathy, rheumatoid arthritis, asthma, warts and allergic dermatitis. Each of the methods would have separate and distinct method steps to reach the desired outcome. To search for one of the inventions of groups XXXIII-XXXV would not necessarily return art against the invention of group XXXIX. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXIII-XXXV are each unrelated to the invention of group XL. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXIII-XXXV have not been disclosed as capable of use together and have different effects than the invention of group XL. The inventions of groups XXXIII-XXXV are drawn to separate and distinct methods than the invention of group XL. The inventions of groups XXXIII-XXXV have the effect of manufacturing a medicament for the treatment of cancer, whereas the invention of group XL has the effect of preparation of a medicament for the treatment of cancer that further comprises a chemotherapeutic agent. Each of the methods would have separate and distinct method steps to reach

the desired outcome. To search for one of the inventions of groups XXXIII-XXXV would not necessarily return art against the invention of group XL because the search for any of the inventions of groups XXXIII-XXXV would not involve consideration of chemotherapeutic agents. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXIII-XLI and XLIII are each unrelated to the invention of group XLII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXIII-XLI and XLIII have not been disclosed as capable of use together and have different effects than the invention of group XLII. The inventions of groups XXXIII-XLI and XLIII are drawn to separate and distinct methods than the invention of group XLII. The inventions of groups XXXIII-XLI and XLIII have the effect of manufacturing a medicament for the treatment of cancer or other disorders, treatment of cancer, or prevention of cellular proliferation, whereas the invention of group XLII has the effect of treating a mammal suffering from a disease caused by angiogenesis specifically by administering an oligonucleotide targeted to survivin. Each of the methods would have separate and distinct method steps to reach the desired outcome. To search for one of the inventions of groups XXXIII-XLI and XLIII would not necessarily return art against the invention of group XLII because the search for any of the inventions of groups XXXIII-XLI and XLIII would not involve consideration of targeting survivin. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXIII-XXXV are each unrelated to the invention of group XLIII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXIII-XXXV have not been disclosed as capable of use together and have different effects than the invention of group XLIII. The inventions of groups XXXIII-XXXV are drawn to separate and distinct methods than the invention of group XLIII. The inventions of groups XXXIII-XXXV have the effect of manufacturing a medicament for the treatment of cancer, whereas the invention of group XLIII has the effect of preventing cellular proliferation. Each of the methods would have separate and distinct method steps to reach the specific desired outcome. To search for one of the inventions of groups XXXIII-XXXV would not necessarily return art against the invention of group XLIII because the search for any of the inventions of groups XXXIII-XXXV would not involve consideration of prevention of cellular proliferation. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXVI-XXXVIII are each unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXVI-XXXVIII have not been disclosed as capable of use together and have different effects. A method to treat a carcinoma, a sarcoma, or a glioma would each involve a separate and distinct search. Treating each of these types of cancers has not been disclosed as

capable of use together. The treatment of each of these types of cancers result in separate and distinct effects. To search for one of the inventions of groups XXXVI-XXXVIII would not necessarily return art against one of the other inventions. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXVI-XXXVIII are each unrelated to the inventions of groups XXXIX and XL. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXVI-XXXVIII have not been disclosed as capable of use together and have different effects than the inventions of groups XXXIX and XL. The inventions of groups XXXVI-XXXVIII are drawn to separate and distinct methods than the inventions of groups XXXIX and XL. The inventions of groups XXXVI-XXXVIII have the effect of treating cancer, whereas the inventions of groups XXXIX and XL have the effect of manufacturing a medicament, each of which would have separate and distinct method steps to reach the specific desired outcome. To search for one of the inventions of groups XXXVI-XXXVIII would not necessarily return art against any of the inventions of groups XXXIX or XL. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXVI-XXXVIII are each unrelated to the invention of group XLI. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions

of groups XXXVI-XXXVIII have not been disclosed as capable of use together and have different effects than the invention of group XLI. The inventions of groups XXXVI-XXXVIII are drawn to separate and distinct methods than the invention of group XLI. The inventions of groups XXXVI-XXXVIII have the effect of treating cancer with the compound of claim 1, whereas the invention of group XLI has the effect of treating a cancer with the compound of claim 1 and a chemotherapeutic agent. To search for one of the inventions of groups XXXVI-XXXVIII would not necessarily return art against the invention of group XLI because a search for one of the inventions of groups XXXVI-XXXVIII does not involve the consideration of chemotherapeutic agents. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXVI-XXXVIII are each unrelated to the invention of group XLIII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXVI-XXXVIII have not been disclosed as capable of use together and have different effects than the invention of group XLIII. The inventions of groups XXXVI-XXXVIII are drawn to separate and distinct methods than the invention of group XLIII. The inventions of groups XXXVI-XXXVIII have the effect of treating cancer, whereas the invention of group XLIII has the effect of preventing cellular proliferation, each of which would have separate and distinct method steps to reach the specific desired outcome. To search for one of the inventions of groups XXXVI-XXXVIII would not necessarily

return art against the invention of group XLIII. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The invention of group XXXIX is unrelated to the invention of group XL. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of group XXXIX has not been disclosed as capable of use together and has a different effect than the invention of group XL. The invention of group XXXIX is drawn to a separate and distinct method than the invention of group XL. The invention of group XXXIX has the effect of preparing a medicament for the treatment of artherosclerosis, psoriasis, diabetic retinopathy, rheumatoid arthritis, asthma, warts and allergic dermatitis, whereas the invention of group XL has the effect of manufacturing a medicament for the treatment of cancer and further comprises a chemotherapeutic agent. Each of the separate methods would have separate and distinct method steps. To search for the invention of group XXXIX would not necessarily return art against the invention of group XL. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The inventions of groups XXXIX and XL are each unrelated to the invention of groups XLI and XLIII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the inventions of groups XXXIX and XL have not been disclosed as capable of use

together and have a different effect than the inventions of groups XLI and XLIII. The inventions of groups XXXIX and XL are drawn to separate and distinct methods than the inventions of groups XLI and XLIII. The inventions of groups XXXIX and XL have the effect of preparing a medicament, whereas the inventions of groups XLI and XLIII have the effect of treating cancer and preventing cellular proliferation, respectively. To search for one of the inventions of groups XXXIX and XL would not necessarily return art against either of the inventions of groups XLI or XLIII. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

The invention of group XLI is unrelated to the invention of group XLIII. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the invention of group XLI has not been disclosed as capable of use together and has a different effect than the invention of group XLIII. The invention of group XLI is drawn to a separate and distinct method than the invention of group XLIII. The invention of group XLI has the effect of treating cancer, whereas the invention of group XLIII has the effect of preventing or limiting apoptosis claims or preventing cellular proliferation. Each of the separate methods has separate and distinct method steps. To search for the invention of group XLI would not necessarily return art against the invention of group XLIII. Therefore, to search more than one of the instantly claimed inventions presents a search burden.

Because the inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, and because a search for art against one group would not necessarily return art against another, restriction for examination purposes as indicated is proper.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G.

86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Claims 1, 2, and 56-86 are subject to restriction since they are not considered to be a proper genus/Markush. See MPEP 803.02-PRACTICE RE MARKUSH-TYPE CLAIMS- If the members of the Markush group are sufficiently few in number or so closely related that a search and examination of the entire claim can be made without serious burden, the examiner must examine all the members of the Markush grouping the claim on the merits, even though they are directed to independent and distinct inventions. In such a case, the examiner will not follow the procedure described below and will not require restriction. Since the decisions in *In re Weber*, 580 F.2d 455, 198 USPQ 328 (CCPA 1978) and *In re Haas*, 580 F.2d 461, 198 USPQ 334 (CCPA 1978), it is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter in a claim lacks unity of invention. *In re Harnish*, 631 F.2d 7169, 206 USPQ 300 (CCPA 1980); and Ex parte Hozumi, 3 USPQ 2d 1059 (Bd. Pat. App. & Int. 1984). Broadly, unity of invention exists where compounds

included within a Markush group (1) share a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility.

Claim 1 recites SEQ ID NOs: 2-144. Claim 2 recites SEQ ID NOs: 2-15 and 117-133. Claims 56-86 recite SEQ ID NOs: 147, 151, 155, 159, 163, 167, 171, 175, 179, 183, 187, 191, 195, 199, 608, 612, 616, 620, 624, 628, 632, 636, 640, 644, 648, 652, 656, 660, 664, 668, and 672, respectively. The Markush/genus of sequences in claims 1, 2 and 56-86 are not considered to constitute proper genus, as each sequence is structurally unique. Each sequence is considered to be unrelated, since each sequence is structurally and functionally independent for the following reasons: each sequence has a unique nucleotide sequence and each of the sequences do not contain a common structural core. Although each of the sequences comprise nucleotides, it is the sequence of such nucleotides that defines each molecule. As such the Markush/genus of sequences in these claims are not considered to constitute proper genus, and therefore are subject to restriction. Furthermore, a search of more than one of the sequences claimed presents an undue burden on the Patent and Trademark Office due to the complex nature of the search and corresponding examination of more than one of the claimed antisense sequences. Accordingly, applicants are required to elect one specific subsequence from claims 56-86 or one sequence comprising a subsequence from claims 1 or 2. Applicant is required to elect one sequence for examination.

Claims 123, 144, 146 and 148 are directed the following patentably distinct species of the claimed invention: adrenocorticosteroids, such as prednisone,

dexamethasone or decadron; altretamine (hexalen, hexamethylmelamine (HMM)); amifostine (ethyol); aminoglutethimide (cytadren); amsacrine (M-AMSA); anastrozole (arimidex); androgens, such as testosterone; asparaginase (elspar); bacillus calmette-gurin; bicalutamide (casodex); bleomycin (blenoxane); busulfan (myleran); carboplatin (paraplatin); carmustine (BCNU, BiCNU); chlorambucil (leukeran); chlorodeoxyadenosine (2-CDA, cladribine, leustatin); cisplatin (platinol); cytosine arabinoside (cytarabine); dacarbazine (DTIC); dactinomycin (actinomycin-D, cosmegen); daunorubicin (cerubidine); docetaxel (taxotere); doxorubicin (adriomycin); epirubicin; estramustine (emcyt); estrogens, such as diethylstilbestrol (DES); etopside (VP-16, VePesid, etopophos); fludarabine (fludara); flutamide (eulexin); 5-FUDR (floxuridine); 5-fluorouracil (5-FU); gemcitabine (gemzar); goserelin (zodalex); herceptin (trastuzumab); hydroxyurea (hydrea); idarubicin (idamycin); ifosfamide; IL-2 (proleukin, aldesleukin); interferon alpha (intron A, roferon A); irinotecan (camptosar); leuprolide (lupron); levamisole (ergamisole); lomustine (CCNU); mechlorathamine (mustargen, nitrogen mustard); melphalan (alkeran); mercaptopurine (purinethol, 6-MP); methotrexate (mexate); mitomycin-C (mutamucin); mitoxantrone (novantrone); octreotide (sandostatin); pentostatin (2-deoxycoformycin, nipent); plicamycin (mithramycin, mithracin); prorocarbazine (matulane); streptozocin; tamoxifin (nolvadex); taxol (paclitaxel); teniposide (vumon, VM-26); thiotepa; topotecan (hycamtin); tretinoin (vesanoid, all-trans retinoic acid); vinblastine (valban); vincristine (oncovin) and vinorelbine (navelbine).

Further, claims 145, 147, and 149 are drawn to taxanes Taxol, Paclitaxel, and Docetaxel.

Each of the claimed chemotherapeutic compounds are separate and distinct, sharing no common structure.

Claim 128, 129, 137 and 138 are directed the following patentably distinct species of the claimed invention: malignant melanoma, basal cell carcinoma, ovarian carcinoma, breast carcinoma, non-small cell lung cancer, renal cell carcinoma, bladder carcinoma, recurrent superficial bladder cancer, stomach carcinoma, prostatic carcinoma, pancreatic carcinoma, lung carcinoma, cervical carcinoma, cervical dysplasia, laryngeal papillomatosis, colon carcinoma, colorectal carcinoma and carcinoid tumors.

Additionally, claims 130 and 139 are directed to the following patentably distinct species of malignant melanomas of claims 129 and 138, respectively: superficial spreading melanoma, nodular melanoma, lentigo maligna melanoma, acral melagnoma, amelanotic melanoma and desmoplastic melanoma.

Claims 132 and 141 are directed to the following patentably distinct species of sarcomas: osteosarcoma, Ewing's sarcoma, chondrosarcoma, malignant fibrous histiocytoma, fibrosarcoma and Kaposi's sarcoma.

Each of the claimed cancers are separate and distinct, each involving separate etiologies and cancer genes.

Claim 143 is drawn to the following patentably distinct species of the claimed invention: artherosclerosis, psoriasis, diabetic retinopathy, rheumatoid arthritis, asthma, warts, and allergic dermatitis.

Each of these disorders are unrelated, each have separate etiologies and distinct genes involved in each disorder.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the

case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement may be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy H. Bowman whose telephone number is 571-272-0755.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Amy H. Bowman
Examiner
Art Unit 1635

JD Schultz

JAMES SCHULTZ
PATENT EXAMINER